

Amendments to the Claims

1. (Currently amended) A method for forming carboxylate-alumoxane nanoparticles, comprising:
subjecting a mixture comprising boehmite and carboxylic acid to mechanical shear
in the substantial absence of a solvent.
2. The method according to claim 1 wherein the method is carried out at a temperature above ambient.
3. (Original) The method according to claim 1 wherein the method is carried out at a temperature greater than 80°C.
4. (Original) The method according to claim 1 wherein the method is carried out substantially in the absence of a liquid phase.
5. (Original) The method according to claim 1 wherein the carboxylate-alumoxane particles are formed within two hours of initiation of shear application.
6. (Original) The method according to claim 1 wherein the carboxylate-alumoxane particles are formed within one hour of initiation of shear application.
7. (Original) The method according to claim 1 wherein the mixture is heated by the application of heat from an external source.
8. (Original) The method according to claim 1 wherein the mixture is heated by the application of heat from an external source and by the application of mechanical shear.
9. (Original) The method according to claim 1 wherein the carboxylic acid is selected from the group consisting of an aliphatic carboxylic acid, an aromatic carboxylic acid, and a carboxylic acid containing an additional chemically reactive functional group.

10. (Original) The method according to claim 1 wherein the mixture is subjected to mechanical shear by passing it through a tube at a linear velocity of at least about 1,000 ft/min.

11. (Original) The method according to claim 1 wherein the mixture is subjected to mechanical shear by passing it through a device comprising a rotor and a stator.

12. (Original) The method according to claim 1 wherein the carboxylate-alumoxane nanoparticles have an average size of less than 200 nm.

13. (Original) The method according to claim 1 wherein the carboxylate-alumoxane nanoparticles have a size distribution such that the particle size range is $\pm 20\%$ of the average size.

14. (Currently amended) Carboxylate-alumoxane nanoparticles produced by the method according to claim 1.

15. (New) The method according to claim 1 wherein the method is carried out at a temperature greater than 80°C and the carboxylate-alumoxane particles are formed within two hours of initiation of shear application.

16. (New) The method according to claim 15 wherein the wherein the carboxylate-alumoxane particles are formed within 30 minutes of initiation of shear application.